Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION

www.egara.club

October 2018

President - Tom Scorsone, KC2FCP
Vice-President - Nick Field, KD2JCR
Secretary - Steve VanSickle, WB2HPR
Treasurer, Webmaster & Newsletter Editor - Bryan Jackson, W2RBJ

EGARA Celebrates Its 20th Year

Special Event Station Planned in December for Anniversary

This year marks the 20th anniversary of the founding of the East Greenbush Amateur Radio Association by two local hams, Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH. Today, the club has over 50 members, including three who live in Europe.

The genesis for the club began in 1998, when Linck and Bruins decided to form their own club after being members of the Troy Amateur Radio Association. At first, EGARA was an informal affair, meeting at the former Search and Rescue building on Euclid Street.

The original "club" circa 1999

In 2000, Tom Scorsone, KC2FCP, took the helm as President, a position he holds to this day. Among his first objectives was to get the club officially incorporated as a non-profit organization, complete with a charter and by-laws. He also arranged for the acquisition of liability insurance to protect both the club and its members and officers. (continued on page 2)

Welcome Aboard! Adam Rieder, W1OAR Joins the Club

The September membership meeting of EGARA was highlighted by the addition of a new member, Adam Rieder, W1OAR, a recently licensed Tech. Originally a native of the Chicago area, today Adam lives with his wife and children in Castleton. Adam holds an Associate of Science degree in Electrical Engineering Technology (ASEET) and currently works in the Information Technology field as a Manager of Integration and Delivery for an Albany, NY-based software company.

Adam Reider, W1OAR

"I asked a friend (K2ETA) 'What's with all the antennas on your car?' He said, 'Check it out for yourself and buy a radio.' With an electronics background, I wanted to see how I would do on a Technician exam. So I studied and took the test. Now, here I 'ham'! I joined EGARA because I could see from the website that its an active club where I could learn under the guidance of experienced operators.

I'm looking forward to getting to know everyone, moving into HF and upgrading to my General license -- perhaps even an Extra someday."

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Save the Date! Next Membership Meeting - October 10, 2018 at 7 pm

EGARA Marks Two Decades of Service

After meeting for three years at the Search and Rescue building, the club had the chance to move to its current location at the East Greenbush Masonic Temple.

SK Bert Bruins, N2FPL, co-founder of EGARA

"Bob Stark, KA2EXK, was both a member of the club and the Masonic lodge," recalled Scorsone. "He said the lodge would probably let us use the hall in return for helping to clean and maintain the building. We jumped at the chance, especially since they were going to let us have some storage space for the club's gear and antennas. It's been a great relationship for both organizations."

In 2003, EGARA hosted its first Hamfest at the East Greenbush Fire Department on Phelps Road -- the site it has used every year since. The first event was free and attracted around 75 local hams -- considered by all to be a great success. Its first commercial vendor was Radio Oasis. The following year saw a slight increase in attendance to approximately 100. Today, attendance regularly ranges between 200 and 250, and attracts vendors such as KJI Electronics, which offers a wide range of gear, accessories and publications. In 2019, EGARA will host its 16th Hamfest.

As the club continued to grow, so did its activities and public service. In addition to its annual Hamfest, it added events such as Field Day, a holiday party and instructional programs that included an antenna building workshop each January. More recently, the club has established a regularly published newsletter "Sidebands" and upgraded its website at www.EGARA.club. An annual Hudson River boat cruise has also been added to its activities.

With a stated goal of "Providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State," EGARA has prided itself on its involvement in public service activities. These have included providing communications support for several community fundraising events, liaison with local public safety agencies, and administering FCC licensing sessions three times a year. It also operates several VHF and UHF repeaters that are open to club members and the public.

The club station is W2EGB and to mark its 20th anniversary, EGARA plans to operate a special event station on December 1st, as proposed by Vice President Nick Field. The plan is to have individual club members use their stations to make as many contacts as possible using the W2EGB call sign. Contacts which send a QSL card and a self-addressed stamped envelope will be sent a special event QSL by the club. Complete details will be announced in the November issue of *Sidebands*.

"Our club has come a long way during the past two decades," said co-founder Chris Linck, N2NEH. "We have a great group of dedicated members -- and it shows."

October Brings Annual "October(ham)fest"

The October 10th meeting of EGARA will once again feature the club's annual "Mini-Hamfest" -- an opportunity for area hams to buy, sell and swap gear. As in the past, the event will be open to all amateurs, with no charge for admission or display tables. In addition, the club will provide free refreshments to those who attend. ARRL has also provided several items that will be raffled off.

"Our mini-Hamfest gives hams a chance to turn their unneeded gear into cash, while providing others with the opportunity to pick up some great bargains," said EGARA President Tom Scorsone, KC2FCP. "We welcome everyone to stop by, bring any gear they'd like to sell, check out what's for sale, and have a cup of coffee."

Scorsone also noted that the October event has also become a social event for many local hams. "Even if you're not looking to buy or sell anything, it's a nice opportunity to catch up with friends." EGARA's mini-Hamfest will be held at the East Greenbush Masonic Temple and start at 7 pm.

RFI at the (Gas) Station

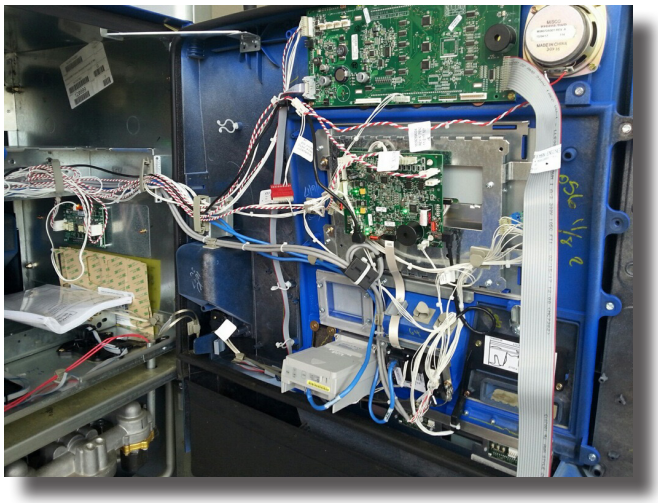
By Steve VanSickle, WB2HPR

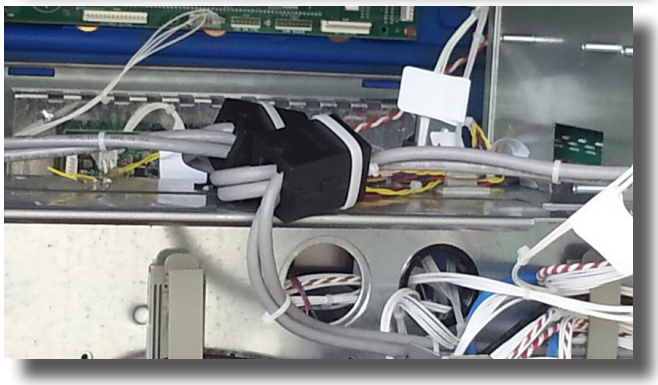
I have always been on the prowl for sources of RFI (Radio Frequency Interference) with the hope that by tracking down their source, I could find a way to reduce or eliminate the noise.

Why?

If you tune through the MW, HF, and VHF ham bands, you'll likely hear some very strange noises that are not meant for ham communicators. Some of our bands are shared with other services, so there is little control over some of this interference. Other noise sources may be due to unintentional radiation from unexpected sources, such as computers, street lights, and defective power insulators. All of these radiated signals raise the received noise level in our receivers, hindering communication in these low sun spot conditions. So it pays us to track down these noise sources and do what is possible to eliminate them or reduce their effects.

Earlier in the year, I had a chance meeting with a service technician at a convenience station. He was performing maintenance and updates to the computerized gas pump equipment. The covers of the pumps were opened to allow him to attach his test equipment. After a brief discussion, he allowed me to photograph the inside of the pump mechanism. As you can see from the photos, the hi-tech pumps not only meter the fuel, and also connect the credit card reader to the central data processing system inside the store. Note the liberal use of ferrite RF suppressors throughout the pump. These are used to mitigate the effects of the RFI produced by the computer circuitry, and to prevent outside sources of RF from disrupting the pump operation. With all of these measures in place, one would expect that RF environment to be fairly docile – NOT!





(Top photo): Lots of electronics can be found inside your neighborhood gas pump, providing plenty of sources for RFI.

(Bottom photo): RF chokes help, but do not completely stop interference according to the author's own experience.

The pump's RFI could be heard in my mobile receiver, and there were 11 more pumps at this station. Just imagine, the amount of RFI produced by the 1,000's of pumps throughout the country, running 24/7, each radiating just a low RF level. Collectively, these sources, and others like them, combine to raise our received noise floor (level) – which can be difficult to overcome at times.

Well, we can't eliminate gas station interference by ourselves. However, we can -- and should -- report suspected RFI sources to the responsible party or owner as a starting point to achieve abatement. RFI generators like computers must comply with FCC part 15 rules and regulations, which sets limits to interfering signals. Likewise, street light and power line noise should be reported to utility operators. Also, if you use directional antennas, they can be reoriented to reduce RFI effects. Finally, RF noise canceling equipment is available from several sources and with proper use, will likely reduce the level of background noise on your receiver.

Additional information regarding RFI may be obtained from the FCC and the ARRL websites.

55 Years Old and Still a Flamethrower

HF broadcasting lives on at VOA's Greenville station

By James E. O'Neal

Few would dispute that there has been a marked decline in shortwave broadcasting listenership since the end of the Cold War in 1991. Many former large-scale international broadcasters have cut schedules sharply, or have ended HF radio transmissions altogether.

While the International Broadcasting Bureau, which oversees Voice of America operations, has closed a number of its domestic and overseas transmitting facilities (relay stations) and moved into placement of programming on AM and FM outlets in countries where a VOA presence is desired, it still provides programming for shortwave listeners every month.

At one time the government's domestic HF broadcasting activities involved several large shortwave transmitting plants located in Ohio, California and North Carolina. Today, only one remains; it's located amid Carolina farm land and forests just a few miles from downtown Greenville. It's officially known as the Edward R. Murrow Transmitting Station and actively beams out programming in the international broadcasting spectrum on a daily basis. The main target areas for the station's shortwave broadcasts are Latin America, Cuba, the Caribbean, North Africa, and Africa.

Greenville Site B remains the single largest radio transmission plant in the United States. The transmitter building houses eight very large transmitters; all typically operate at 250 kW and two can provide 500 kW of HF power, if required. There's also a 50 kW unit kept for backup.

When the station first took to the air in February 1963, it was one of three VOA facilities constructed here. The sites were designated "A," "B" and "C," and ringed Greenville, forming a triangle with its vertices roughly 20 miles apart. In its heyday, the Greenville operation was the largest broadcasting site in the world.

Site C served as the operation's "receive" site and was linked to the VOA's Washington studios by both a dedicated interstate microwave system and AT&T Long Lines service. It distributed programming to transmitters located at the "A" and "B" sites, and also served as an administrative center. Equipment installed at "C" included a large number of HF antennas and diversity receivers for reception and relay of shortwave broadcasts from anywhere in the world. That facility was closed and dismantled in the mid-1990s, with a consolidation of operations to the "A" and "B" transmission sites.

You don't cool 500MW tubes by blowing on them. The VOA site uses thousands of gallons of chemically pure non-conductive cooling water circulated between the transmitters and these massive heat exchangers.

Site A was deactivated several years ago and placed in "mothball" status, leaving Site B as the only operational Greenville VOA facility. Although its operations have been scaled back from the "glory days" of 40 or so years ago and its future has been put in question, Site B still ranks as the largest radio transmission plant in this country and, at least for now, remains an active and impressive radio broadcasting facility. The station consumes approximately 1 million kilowatt hours of electricity each month.

During the recent hit be Hurricane Florence, the station continued to operate and ramped up its staffing to cope with any storm damage. The facility was built in the early 1960s, the buildings and antenna systems were built to withstand 120 mile an hour winds.

"When big storms hit, most places go to minimum staffing. We do the opposite," said VOA's Program Support Manager Rick Williford.

3D Printed Parts for Ham Radio

By Dan Romanchik, KB6NU

One of the things that I keep telling myself that I need to learn how to do is 3D printing. This morning, I ran across a couple more 3D printing projects for ham radio that I thought I'd pass along.

The first I found on reddit: 3D Printed Parts for Portable Tape Measure Yagi Designs at ***https://www.reddit.com/r/amateurradio/comments/963br3/3d_printed_parts_for_portable_tape_measure_yagi/***. Thingiverse is the website where 3D designers share their plans. The site's overview of the project at ***https://www.thingiverse.com/thing:3042505***, says:

"*These parts are made for use with 1-in. PVC pipe and 1-in. Harbor Freight tape measure steel. You can use electrical tape to attach the element holders to the side of the pipe, and use the driven element bridge to give structural rigidity across the driven dipole element. I have used this with up to 5 elements on 2m with good success. When not using the antenna, just pinch the elements to remove them from the holders, and store them INSIDE the tube! you can add some end caps to make this ultra portable. Use these parts with any of the multitude of tape measure YAGI design guides online.*"

At the right is a look at an antenna made with these parts.

The element holders are attached to the boom with electrical tape in the photo above. While I haven't tried it, I'd suggest that the antenna might be a bit more robust if you could screw or perhaps glue the holders to the boom.

There are lots of other cool amateur radio 3D printing projects available on Thingiverse at ***https://www.thingiverse.com/search?q=ham+radio&dwh=415b6d8da129c3c***. Browsing through the list quickly, here are just two that look like they might be useful to me:

- Soldering Fingers (https://www.thingiverse.com/thing:1725308). This project looks simple and quick.
- µBitx Case (https://www.thingiverse.com/thing:2925336). I still gotta do something with the µBitx I bought. This looks like it might get me started.

Finally getting in gear

Last week, I attended a 3D printing class at our local maker space, All Hands Active (allhandsactive.org), and now I feel like I can finally attempt a 3D printing project. I'm thinking about starting out with the simple Soldering Fingers project. If that goes well, I'll try a Raspberry Pic case and finally start using that in the shack. And, while these projects all seem pretty cool, I feel like I'm only scratching the surface.

Have any of you 3D printed anything cool for your ham radio projects? Is there another source of designs for ham radio 3D printed stuff besides Thingiverse? Let me know at my email address below.

About the Author: When he's not 3D printing enclosures for his ham radio projects, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him about your experiences with 3D printing at cwgeek@kb6nu.com.

EGARA September Meeting Minutes

- The September meeting of the EGARA was called to order at 7:20 PM by President Tom Scorsone, KC2FCP;

- The Treasurer's report was presented by Treasurer Bryan Jackson, W2RBJ and approved by the membership:

- Jackson also provided a membership update, noting the addition of a new member, Adam Rieder, W1OAR. In addition, he announced that Peter Mattice, KD2JKV, had resigned from the club because he had relocated to Massachusetts. Adam was welcomed after a round robin of introductions by the member who were present;

- Tickets were drawn and prizes awarded in the monthly raffle;

- EGARA celebrates its 20th anniversary this year, and a special event station will be conducted, with certificates and QSL cards upon receipt of a SASE. The special event will be run in November. Tom Scorsone will be finalizing the arrangements and handling publicity;

- The annual Run for Hope is not scheduled to be held this year. Also, the Run/walk for domestic violence this past season may be the last, unless new leadership is found. Bill Leue, K2WML said he noticed other similar cancellations. However, the club did provide radio communications for a new veteran's event this summer at the local Elks lodge;

- The annual Hudson River cruise aboard the "Spirit of Albany" has been rescheduled for October 6th. The craft also won Best of Show in the annual Tug Boat Roundup in Waterford this summer.

- With the onset of Hurricane Florence, it was announced that States of Emergency hade been declared from Virginia to Georgia and that ARRL had positioned HF equipment in Atlanta. Members were reminded to avoid operating on emergency net frequencies established on: 7.268 (Hurricane Net), 14.300 (Maritime Net), 14.265 (SATURN) and 14.325 MHz (ARES). These frequencies are for emergency communications only during this event and it is requested that they be kept clear. Amateur stations were reminded to assist if relays are necessary.

- Bill Leue has recently completed 3 levels of ARES training. Training materials for the FEMA and ARES courses may be obtained from the ARRL website. Following completion of the coursework, ARRL will be able to identify qualified operators to deploy in emergency situations. Bill will be bringing sample course materials to the next meeting.

- Bryan Jackson is preparing a "new ham" starter package of information. Details are being worked out. Dave Jaeger, K2DEJ expressed interest in helping new techs upgrade to General class. If members have any extra manuals or radio books, they can be passed along to new licensees.

- On October 13th, a VE session will be conducted at the East Greenbush Community Library. An email reminder will be sent.

--de Steve VanSickle WB2HPR / Secretary

On the Beam
News & Notes

ARRL President Says it's Time to Reinvent Amateur Radio

Rick Roderick, K5UR, ARRL President recently gave a speech at the West Virginia ARRL Convention. His focus? Re-branding amateur radio AND the ARRL. Here are a couple excerpts as reported from Amateur Radio Newsline.

"Are we even relevant anymore as ham radio operators? Well, let's see: We're world communicators. We provide public service. We help in emergencies and disasters. We help save lives. We talk to the jungles of Africa…to the beaches of the South Pacific. We bounce signals off the moon. We talk to astronauts. We promote technology. We do positive things. So absolutely—we are relevant.

We've got to accept change and we've got to adapt if we're going to bridge that gap to that next generation. So the question that I have here that I have challenged my colleagues at ARRL with is this: is it time to re-brand ham radio? Maybe we need to re-brand the American Radio Relay League. That's a pretty profound statement."

"Well I think we ought to get out there and stir things up. That's what I think we ought to do. I think you ought to go back and rejuvenate your club. Over the next year, get somebody into ham radio. The second thing I want you to do….I want you to help a ham that needs your help. And the third thing I want you to do is—if you're not a member of the American Radio Relay League, you need to join today…because you know that whether you like us or not, we're all you've got; ain't nobody else in Washington DC helping us. I want you to ask yourself this question: don't you think it's time to give something back? Now I believe as a group, if we all did that we'll make a difference in this hobby as we go forward. Be a champion of ham radio. Let's work together and get it done."

Hudson River Cruise Rescheduled

Fall Colors Should be on Full Display October 6th

After Mother Nature's rain washed out the annual EGARA Hudson River cruise in August, it was decided to try our luck again in the Fall. A quick look at the foliage report indicated that colors should be near peak during the first week of October, and so the date of October 6th has been selected to board the "Spirit of Albany" for the club's annual river outing.

The trip will leave Saturday morning promptly at 10 am from the Port Commission offices located at 100 Smith Boulevard at the port. The boat can accommodate 20 individuals and those who plan to make the trip are asked to RSVP by October 4th to Bryan Jackson via email at ***W2RBJ@outlook.com***.

Enjoying a day on the river

The trip will last approximately 2 1/2 hours and it's recommended that those going aboard bring refreshments and lunch. Since the fall colors will be at their peak, cameras are also recommended.

The trip will be weather dependent. Should inclement weather be forecast, a cancellation notice will be emailed to those who have made a reservation. But hopefully Mother Nature will cooperate this time.

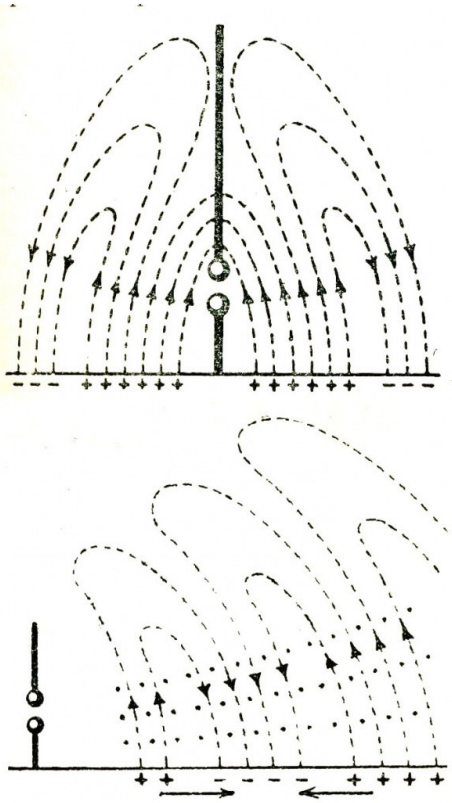
The History of Ham Radio: Technical Writing

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

Although the mainstream press frequently covered advancements in radio, QST was one of the few published sources of practical, technical information available to amateurs. The articles would present enough technical detail to be useful but were written to be understood by most amateurs and therefore were more accessible than papers in professional journals. Prominent researchers in radio engineering, such as Edwin Armstrong and Frederick Terman, were also amateurs and published articles in both communities.

In the first technical article to appear in QST, ARRL co-founder Clarence Tuska wrote in the inaugural issue about visualizing electromagnetic waves. He made a good attempt at explaining their origin according to Planck and Hertz, and extrapolated to say why mountains were bad for propagation and open water was good. Atmospheric propagation, or "Skywaves," were as yet unknown. His diagrams showed field lines becoming detached from an antenna and propagating along the ground as giant loops, similar to how it was being portrayed in textbooks of the period.



Tuska's visualization of field lines around an antenna (top) and in flight (bottom)

The Radio Club of America was formally introduced to League members in a QST article. Its introductory banner stated that, just as the ARRL was the leader in relay work, the RCA was the leader in "practical amateur theory," and the two ought to become "better acquainted through QST."

Monthly RCA meetings at Columbia University featured presentations of technical papers on recent developments by leaders in the field and provided hams an opportunity to socialize with other radio enthusiasts.

Edwin H. Armstrong was president, and noted receiver expert Paul F. Godley was a director and chairman of the publications committee; both were amateurs active on the air. In fact, all RCA members who were also active operators were ARRL members too.

October 13th FCC Exam Session to Give Away a Dual Band Radio!

A Kenwood VHF/UHF dual band radio will be given away to one lucky person who passes their Technician exam during EGARA's next FCC test session on Saturday, October 13th. Exams for all licenses classes will be given at the East Greenbush Community Library, with doors opening at 10 am and the exam session begining promptly at 10:30 am. A standard test fee of $15 is required of all applicants.

"Giving away a transceiver is part of our effort to get new hams on the air" said Steve VanSickle, WB2HPR, one of EGARA's Volunteer Examiners. "It's also a great opportunity for existing hams to upgrade their operating privileges, especially those who currently hold a Technician class license. HF litterally opens a whole new world of DX."

Applicants who want to upgrade should bring a copy of their existing license, as well as photo ID and the $15 test fee. Applicants shoud arrive promptly at 10 am to complete necessary paperwork before they take their exam.

Hams Push to Save WWV and WWVH from Budget Cuts

Amateur Radio is worried about efforts to cut funding for WWV and WWVH, the long operating time signals operated by the National Institute of Standards and Technology (NIST). The Trump Administration has proposed shutting the facilities down in its Fiscal Year 2019 budget request. The proposed cuts also would include the Atomic Clock signal from WWVB used to synchronize specially equipped clocks and watches. Online petitions soliciting signatures have included one established by Tom Kelly II, W7NSS, of Portland, Oregon, who would like to see funding for the stations maintained. Congress will make the final decision when it enacts the new federal budget.

ARRL is among those worried over the possible loss of WWV, WWVH, and WWVB and is suggesting that members of the Amateur Radio community who value the stations for their precise time and frequency signals and other information sign Kelly's petition and contact their members of Congress promptly, explaining how the stations are important to them, beyond government and military use.

WWV's transmitting site in Fort Collins, Colorado could go dark if budget cuts proposed by the Trump administration are approved by Congress. In addition to audio time broadcasts 24/7, the station provides signals used by many consumer devices to maintain accurate time.

Kelly's petition, which may be signed by US residents, notes that WWV is among the oldest radio stations in the US, having been established in 1920.

"The station has transmitted the official US time for nearly 100 years, and is an instrumental part in the telecommunications field, ranging from broadcasting to scientific research and education," his petition says. "Additionally, these stations transmit marine storm warnings from the National Weather Service, GPS satellite health reports, and specific information concerning current solar activity and radio propagation conditions. These broadcasts are an essential resource to the worldwide communications industry."

NIST's full Fiscal Year (FY) 2019 budget request to Congress calls for the agency to "discontinue the dissemination of the US time and frequency via the NIST radio stations in Hawaii and Fort Collins, Colorado." The agency noted, "These radio stations transmit signals that are used to synchronize consumer electronic products like wall clocks, clock radios, and wristwatches, and may be used in other applications like appliances, cameras, and irrigation controllers." The specific cut, which would come from the NIST Fundamental Measurement, Quantum Science, and Measurement Dissemination budget, would amount to $6.3 million.

WWV and WWVH broadcast time and frequency information 24/7, including time announcements, standard time intervals, standard frequencies, UT1 time corrections, a BCD time code, geophysical alerts, and marine storm warnings. Transmissions are broadcast from separate transmitters on 5, 10, 15, and 20 MHz. An experimental 25 MHz signal is also currently on the air. WWVB transmits standard Coordinated Universal Time (UTC) signals on 60 kHz to appropriately equipped timekeeping devices.

NIST Public Relations Director Gail Porter told Tom Witherspoon, K4SWL — editor of The SWLing Post, which has been tracking developments — that NIST "is proud of the time and frequency services we provide through our radio stations, and understands that these services are important to many people." However, NIST Director Walter Copan has supported the overall budget request.

October: This Month in Radio History

October 1, 1982: First CD players are sold in Japan

October 2, 1995: FCC eliminates licensed operator requirements

October 3, 1938: Alec Reeves patents Pulse Code Modulation (French Patent 852,153 filed Oct. 3, 1938)

October 3, 1942: First successful rocket launch starts the space age

October 3, 1837: Morse files a caveat on the telegraph with U.S. Patent Office

October 4, 1957: Sputnik is launched

October 4, 1983: President Reagan signs Radio Marti into law

October 5, 1921: First baseball World Series game broadcast on radio

October 7, 1957: American Bandstand premieres

October 7, 1970: Intel introduces computer memory chip

October 15, 1990: NRSC-3, recommendations for AM receiver specifications, is adopted

October 17, 1985: Intel intros 386 processor family

October 17, 1919: RCA established

October 23, 2001: Apple introduces iPod

October 27, 1920: KDKA granted broadcast license

October 30, 1745: Invention of the Leyden jar (the first capacitor) by Dean Ewald Jurgen von Kleist of the Cathedral of Cammin

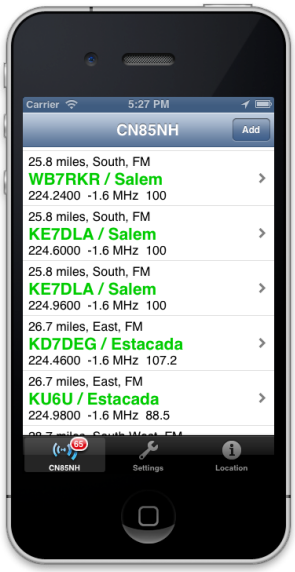
October 30, 1938: Radio Mercury Theater performs The War of the Worlds. The broadcast panics listeners nationwide.

A Free App for Hams

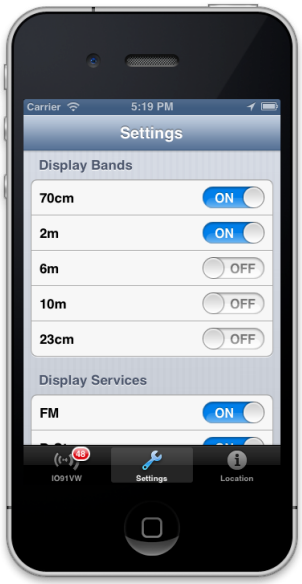
RepeaterBook
ZBM2 Software Tools
Everyone

Hams hate to admit it, but let's face it -- we're cheap. So when we come across something useful that doesn't cost a dime the mantra of "If it's free, it's for me" kicks in. And that's exactly why you'll probably want to check out the RepeaterBook app for your Android device or iPhone. A quick search in Google Play or the Apple Store will bring you to it for a free download.

Powered by the popular community database of RepeaterBook.com and software of ZBM2.com, this free app enables every Ham to easily find repeaters across the world, including the USA, Canada, Mexico and over 70 other countries. The app is also loaded with lots of great features. Here's a quick rundown of what you'll find it can do:



- Search by Town, Call, Frequency and Grid or use Network/GPS to find Repeaters
- Easily submit updates and additions from within the app.
- Growing World Wide Database for - USA, UK, Canda, Argentina, Australia, Austria, Belarus, Belgium, Bulgaria, Brazil, Cyprus, Cayman Islands, Chile, Czech Republic, Denmark, Finland, France, Germany, Guernsey, Greece, Hungary, Iceland, India, Ireland, Isle of Man, Italy, Luxembourg, Malta, Namibia, Netherlands, New Zealand, Norway, Poland, Portugal, San Marino, Slovak Republic, South Africa, Spain, Sweden, Switzerland..
- Support for English, Argentinian, Catalan, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Polish, Slovak, Spanish and Swedish languages (Android).
- Now Supports BlueCAT (Android) - Yaesu and ICOM Bluetooth CAT interfaces Versions for ICOM (7000, 7100) and Yaesu (FT-857, FT-817, FT-897, FT100D) - Touch a repeater to instantly set your radio.
- Comprehensive selection, sorting and display options.
- Displays distance, heading and full repeater details.
- Fast and flexible, designed to help you use the repeater network.



Best of all, RepeaterBook will always be free according to its developer.

Thanks to Nick Field, KS2JCR, for this great story idea!

If there's a story or item you think your fellow hams might find of interest or enjoy, send it along for consideration.

Email your suggestion to: W2RBJ@Outlook.com

CALENDAR

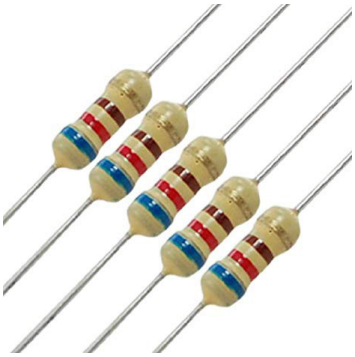
October 6, 2018 - Annual Hudson Rive boat trip, 10 am, Port of Albany Commission offices.

October 10, 2018 - EGARA membership meeting & Mini-Hamfest, 7 pm, Masonic Temple..

October 13, 2018 - FCC exam session, 10 am at East Greenbush Community Library.

December 1, 2018 - EGARA Special Event Station to mark the club's 20th Anniversary. 2 pm to 9 pm EST.

Pro Tip: Guaranteed One Percent Resistors



One percent resistors are often required in electronics applications, however sometimes it's easy to make a mistake by ordering a generic resistor that may have a tolerance of 5% or even 10%. While they may be cheaper, they may not be well suited for the particular needs of an application.

A useful trick is to specify resistors that only come in 1% values. For example, if you have a resistor divider that requires a ratio of 10, rather than using a 10K ohm resistor and a 100K ohm resistor, specify a 10.2K and a 102K ohm instead.

This way there is no possible way to use higher tolerance resistors.

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.

For Sale

- **PAR SM-50 Stressed Moxon 6 meter antenna, aircraft grade aluminum, 1,000 watt capacity, 5.8 dBi gain, 3 Pounds, 84" x 31" rectangle. Like new. Paid $125, sell $75.**

  Contact: Bryan Jackson, W2RBJ at W2RBJ@Outlook.com

- **Swan 700 cx** -- Immaculate condition, collector quality. Recently overhauled. Includes Shure 444 desk microphone, VX-1 VOX in factory box, very rare Model 510X external 10 pos. crystal oscillator, Model 117XC speaker/PS and original manual. Asking $700.
- **Swan 250-C / TV-2C** -- Complete 6 and 2 meter station, beautiful condition & in factory box– checked for proper operation. With Model 117XC speaker/PS, (2) Model NS-1 Noise Blankers, with Swan Model TV-2C Transverter & Shure Model 404-C microphone and Swan 210 external VFO. $750.

  For more info contact Steve VanSickle by email at: svansick@nycap.rr.com

- **Decibel Products, DB-4072, UHF Duplexer, with mounting brackets, A really low price. $125.00**
- **Ritron Patriot UHF 30 Watt GMRS Repeater, w/ duplexers, Programed and tuned to 462.625Mhz Rpt, 25 watts, 186.2 Hz, $275.00 Good Clean.**
- **50 W intermittent dummy load with SO-239 connection. $7.00**
- **CSI 12 frequency Selector Switch, CTCSS Generator, BNC Connector $25.00**

  For items above contact: John Maddalla, WB2HZT at radiowizzz@aol.com

- **Eldico R-104 RECEIVER**, 80-10M, $ 300.00
- **Hammarlund HQ-170 RECEIVER**, 160 through 6 Meter receiver. Does not cover the newer WARC bands of 60, 30, 17, and 12 Meters. $ 225.00

  For items above contact: Tom Scorsone by email at KC2FCP@nycap.rr.com

Looking to Buy, Sell or Swap?
Send your info to W2RBJ@outlook.com